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NATURE AS A SOURCE OF INSPIRATION FOR THE SUPERNATURAL: THE MEDITERRANEAN MORAY AND SERPENTINE SEA MONSTERS

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ABSTRACT

While the sea monsters in ancient Greek and Roman art and literature firmly belong to the supernatural sphere, these sources were probably inspired in part by the natural world. There are convincing arguments to suggest multiple sources of inspiration, which with few exceptions derive from the animal kingdom. Different scholars have touched upon the question of which species might have inspired the ancient imagination, from whales and sharks to snakes and dogs to fossils of long-extinct megafauna. This article is an attempt to add one more possible species: the Mediterranean moray (Muraena helena). *Moray eels have double jaws—pharyngeal jaws constitute a "second set" of sharp teeth—and descriptions of sea monsters in the ancient literature emphasize not just a double but a triple set of teeth. Moreover, the moray eel has a serpentine shape, a common feature of sea monsters. Also, it is a fiercely territorial species, commonly lurking in holes, not unlike the sea monsters of myth abiding in caves.*

KEYWORDS

sea monsters, Greek myth, Roman myth, moray eels, pharyngeal jaws, triple set of teeth, serpentine shape, cave-dwelling

The notion that monsters and other fear-evoking creatures dwelt in the depths of the Mediterranean Sea was widespread in Greco-Roman antiquity, with evidence from oral tradition preserved in ancient Greek and Roman art and literature of that era.[1] And, while these sea monsters firmly belonged to the supernatural sphere, it is beyond doubt that art and literature alike were inspired by animals of the real world.

Modern researchers have found these monsters no less fascinating than the ancient artists and authors, as mirrored in the rich body of scholarship on sea monsters in Greco-Roman culture. In these studies, various animals and fossils—ranging from whales, sharks, and giant oarfish to skeletal remains of

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stranded whales to long-extinct species of the Miocene through Pleistocene epochs (ca. 23 Ma ago to ca. 11,000 BCE) such as giant giraffes and mastodons—have been advocated as the ultimate sources of inspiration. I will argue that the different theories presented by scholars should by no means be considered as mutually exclusive; on the contrary, they can be seen as complementary. Indeed, there are convincing arguments to suggest several sources of inspiration, which with few exceptions all ultimately derive from the animal kingdom.

Taking the textual evidence, which includes material spanning from Archaic Greek to Late Roman texts (well over a millennium, 750 BCE to 500 CE), as a point of departure, I will promote the idea that one more species can be added to this already long list: the Mediterranean moray (*Muraena helena*, Linneaus 1758). The arguments supporting this idea are based on three bodies of evidence:

1. Descriptions of sea monsters in the ancient texts, focusing on those that have physical traits and habitats resembling those of the moray eel, which include having an elongated, serpentine body; having more than one set of teeth (typically triple rows of teeth); and dwelling in caves.
2. Moray eels in ancient texts, where descriptions include practical advice on how to keep them in ponds, where to catch them at sea, and how they were perceived.
3. Modern marine biology on the physical traits, habitats, and behavior of moray eels, that is, the Muraenidae family of eels more generally, and the Mediterranean moray (*Muraena helena* L.) specifically.

EARLIER RESEARCH: FROM GIANT OARFISH TO FOSSIL REMAINS

Before examining the aforementioned evidence concerning moray eels, however, it is prudent to discuss the ideas put forward in prior research. One main source of inspiration for ancient sea monsters advocated in earlier research was living animals that could be encountered in the contemporary world. Three categories have been suggested: marine, riverine (river-dwelling), and terrestrial (land-dwelling) animals. The marine suggestions consist of whales, sharks, and giant oarfish; the river-dwelling of crocodiles; and land animals of snakes, dogs, and lions.

One reason scholars have suggested different marine animals as inspirations for sea monsters relates to the terms Greeks and Romans used to denote sea monsters. The Greek word *kētos* (κῆτος) and the Latin equivalent *cetus* referred not only to the monster (and to the constellation of the same name) but also to

a wide variety of marine animals, especially large ones such as tuna and sharks as well as whales, dolphins, and seals (the latter three being mammals).[2] Here I discuss some of the arguments for certain marine animals other than moray eels as the possible inspirations for ancient sea monsters.

Whales

Seafarers, sailors, fishermen, and not least whalers encountered these massive marine mammals in the Mediterranean and beyond, as evidenced by both the archaeological record and the written sources.[3] Some scholars have suggested whales in general as the inspiration for the *kētos*, whereas others have proposed specific breeds of whale, mainly baleen whales (suborder *Mysticeti*) and toothed whales (suborder *Odontoceti*, which includes certain whales but also dolphins and porpoises).[4] An example of the former is found in Kathleen Coleman's discussion of the sea monster in the fifth book of the first-century CE Roman didactic poet Manilius's *Astronomica* (a poem about celestial phenomena). Coleman's arguments that Manilius's monster was, at least in part, inspired by whales are convincing as the text describes it spouting water through its blowhole: "it spouts the sea up to heaven" (*efflat . . . in caelum pelagus*, 5.603; Coleman 1983: 231).[5] She further points to a well-known passage in Homer's *Odyssey*, the vivid description of the sea monster Scylla, where each of the creature's six heads has triple rows of densely set teeth (12.73–100). The basis for suggesting baleen whales as the inspiration here is that they have two rows (or "combs") of baleen with which they filter plankton from the sea water.[6]

Sharks

Other scholars look for clues to ancient sea monsters in the *Halieutica*, a didactic poem on fishing by the second-century CE Greek poet Oppian. Ana Rodrigues and her co-authors have suggested that the description of hunting sea monsters in the fifth book of the *Halieutica* in part reflects actual ancient whaling practices, and in part mirrors the physical traits of sharks (superorder *Selachimorpha*). They note that the shark aspects of the sea monsters appear in the monsters' jaws, given the description of three rows of close-set javelin-like teeth:

ἔνθ' οἱ μὲν γενύων ὀλοὰς στίχας ἠγάσσαντο,
    δεινοὺς χαυλιόδοντας, ἀναιδέας, ἠΰτ' ἄκοντας
τριστοιχεὶ πεφυῶτας ἐπασσυτέρῃσιν ἀκωκαῖς·

Then they were astonished at the fatal rows of the jaws,
the terrible, tusky, reckless teeth, like javelins
springing up in three rows, one point after the other. (Oppian, *Halieutica* 5.325–327)

Sharks' teeth are not fixed to their jaws but to their gums, and they are constantly replaced throughout their life. Consequently, multiple rows of teeth grow in a groove inside the jaw.[7] Ryan Denson, too, has argued that sharks inspired sea monsters, Scylla in particular. On the basis of the textual sources, he points out that Scylla displays several canine elements and, as was often the case, land animals were thought to have marine equivalents. The sea dog (θαλάττιος κύων), or as we would term it, the shark, has sharp teeth and was perceived as aggressive and voracious, much like dogs.[8]

A similar view is put forward by M. G. Hopman, who notes that Scylla combined three distinctive body parts: a woman's head and torso, dogs' heads protruding from her waist, and a fishtail (2012: 93). In Roman sources such as Vergil, however, the dogs' heads were replaced by wolves' heads:

prima hominis facies et pulchro pectore virgo
pube tenus, postrema immani corpore pistrix,
delphinum caudas utero commissa luporum.

The top of her is of human appearance, and a fair-bosomed maiden
down to the groin; the bottom part is that of a sea monster of immense mass,
wolves at her belly joined to the tail of a dolphin. (*Aeneid* 3.426–428)

As Hopman explains, with the Latin *lupa* ("she-wolf") also meaning "prostitute," this substitution of wolves for Scylla's dogs in the Roman context "offers a fascinating demonstration of how monsters' characteristics are culturally determined" (2024: 171).

The Giant Oarfish

Also known as "the king of herrings," "ribbon fish," and "streamer fish," the giant oarfish (*Regalecus glesne*) has been suggested as another marine animal that inspired ancient sea monsters of serpentine shape. It has a truly spectacular appearance with its ribbon-shaped body, which can reach a length of nine to ten meters: shining silvery skin and a red dorsal fin that runs for the entire

length of the fish. The head in profile resembles a horse with a red mane; notably, however, it has a toothless mouth. This species is widely distributed in the Mediterranean and in the Atlantic (Banister and Fosså 2005). Scholars have pointed to the similarity between Vergil's vivid account of the sea snakes that killed Laocoön and his sons and the giant oarfish:[9]

ecce autem gemini a Tenedo tranquilla per alta
(horresco referens) immensis orbibus angues
incumbunt pelago pariterque ad litora tendunt:
pectora quorum inter fluctus arrecta iubaeque
sanguineae superant undas; pars cetera pontum
pone legit sinuatque immensa volumine terga.
fit sonitus spumante salo; iamque arva tenebant
ardentisque oculos suffecti sanguine et igni
sibila lambebant linguis vibrantibus ora.
diffugimus visu exsangues.

"But lo! from Tenedos, over the peaceful depths
(I tremble as I tell it) twin serpents with immeasurable coils
were pressing upon the sea and moving toward the shore together.
Their breasts were raised over the tides and their blood-red crests
rose above the waves. The remaining part traversed the sea behind
and their backs swelled out in immense coils;
there was a noise as the sea frothed. And now they were reaching the shore
and with their glowing eyes tinged with blood and fire,
they were licking their hissing mouths with quivering tongues.
We scattered, feebled at the sight." (Vergil, *Aeneid* 2.203–212)

The sea snakes so vividly portrayed by Vergil bring some of the physical traits of the giant oarfish to mind. As mentioned above, they can be impressively long, as reflected in the poem's "immense coils." Similarly, the "blood-red crests" resemble the red dorsal fin of this fish.

Crocodiles

In a discussion of sea monsters in Greek and Roman art, J. Boardman points to their origins as an amalgamation of elements deriving from a variety of both terrestrial animals such as dogs, lions, and snakes, and piscine elements such as

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gills, fins, flippers, and fish-tails. He also suggests yet another possible animal that might have inspired the Greek vase-painters: the Nile crocodile (*Crocodylus niloticus*; Boardman 1987: 81). Kenneth Kitchell has also suggested that the saltwater crocodile (*Crocodylus porosus*) may have been a source of inspiration for sea monsters that the Greeks described as dwelling in India. He argues that some Greeks may even have encountered Indian saltwater crocodiles in person (2014: 41). The Greek sources Kitchell references, Ctesias (fifth century BCE) and Aelian (ca. 175–ca. 235 CE), term the animal *skōlex* (σκώληξ, "worm").[10] Aelian's description of this animal's physical appearance is somewhat odd:

> ἑπτὰ δὲ πήχεων τὸ μῆκος προήκουσιν οἱ ἐκεῖθι, εὑρεθεῖεν δ' ἂν καὶ μείζους ἔτι καὶ ἐλάττους· τὸ πάχος δὲ αὐτῶν δεκαετὴς παῖς γεγονὼς μόλις ταῖς χερσὶ περιβάλλειν ἀρκέσει. τούτοις δὴ ἄνω μὲν εἷς ὀδοὺς προσπέφυκε, κάτω δὲ ἄλλος, τετράγωνοι δὲ ἄμφω, πυγόνος δὲ τὸ μῆκος. τοσοῦτον δὲ ἄρα τῶν ὀδόντων αὐτοῖς τὸ κράτος ἐστί· πᾶν ὅ τι ἂν ὑπ' αὐτοῖς λάβωσι συντρίβουσι ῥᾷστα, ἐάν τε λίθος ᾖ ἐάν τε ἥμερον ζῷον ἢ ἄγριον.
>
> These creatures reach seven cubits in length, though both larger and smaller ones may be found. Their thickness is such that a ten-year-old boy would barely be able to throw his arms around them. Notably, one tooth is attached to the upper jaw, another one to the lower; both are square and as long as the distance between the elbows and the first joint of the fingers. The strength of their teeth is such that all they seize upon is crushed with ease, whether it is a stone or an animal, tame or wild. (*De natura animalium* 5.3)

Its behavior, however, is consistent with that of a crocodile:

> καὶ μεθ' ἡμέραν μὲν κάτω καὶ ἐν <τῷ> βυθῷ τοῦ ποταμοῦ διατρίβουσι, τῷ πηλῷ καὶ τῇ ἰλύι φιληδοῦντες, καὶ ἐντεῦθεν οὐκ εἰσὶν ἔκδηλοι· νύκτωρ δὲ προΐασιν ἐς τὴν γῆν, καὶ ὅτῳ ἂν περιτύχωσιν, ἢ ἵππῳ ἢ βοῒ ἢ ὄνῳ, συντρίβουσιν αὐτόν, εἶτα σύρουσιν ἐς τὰ ἑαυτῶν ἤθη, καὶ ἐσθίουσιν ἐν τῷ ποταμῷ.
>
> In the course of the day, they pass the time in the depths of the river, delighting in the mud and slime, and therefore they are not visible. But at night they come onto land, and whatever they happen to meet, be it a

> horse, an ox, or an ass, they crush it, then drag it down to their abodes and eat it in the river. (Aelian, *De natura animalium* 5.3)

Snakes

Richard Stothers has argued that "dragons" in the form of giant snakes and "sea serpents" were inspired by whales and pythons. The latter may seem unexpected as a source for monsters that inhabit the deep seas, but Stothers points to the fact that some large snakes, such as the Indian python (*Python molurus*) spend time in water, including the sea (2004: 226). Similarly, the Burmese python (*Python bivittatus*), once believed to be a subspecies of the Indian python but now considered a species in its own right, is semi-aquatic, spending much of its time in or near water (Hunter et al. 2015: 2; Smith et al. 2021: 10). The Indian python grows to an average length of 10 feet, while the Burmese python, one of the largest snakes in the world, averages 16 feet. However, the *Pythonidae*, a family of nonvenomous snakes, are found not in the Mediterranean area but rather in sub-Saharan Africa and Southeast Asia. And while Stothers certainly is correct that the classical world came into closer contact with India starting in the fourth century BCE, stories of gigantic snakes and dragons stretch further back in time.[11]

Dead and Fossilized Animals

Dead animals, specifically the bones of beached whales, may have constituted one source of inspiration for the massive sea monsters of ancient myths. In a study of a scapula from a fin whale (*Balaenoptera physalus*, a type of baleen whale) dating to ca. 850 BCE found in Athens, Greece, J. Papadopoulos and D. Ruscillo discuss how the bodies of beached whales rapidly start to rot and disintegrate in the hot Mediterranean climate, and how the skeletal remains are often spread by the surf. They point to many written sources that suggest these unusual skeletons were interpreted as the remains of sea monsters mentioned in myth (2002: 198, 213). Indeed, the first-century CE naturalist Pliny the Elder specifies that finds of sea monsters were skeletons (*Natural History* 9.4.11): "During his aedileship [in 58 BCE], Marcus Scaurus brought the bones of the monster to which Andromeda is said to have been exposed, among other wonders, from the town of Jaffa in Judaea and exhibited them at Rome."[12] Daniel Ogden stresses that the skeletal remains of whales are much more serpentine in shape than live whales, especially the narrow skull, which brought sea monsters to mind. (2013: 117–18).

Aside from skeletal remains of contemporary animals, fossil remains of long extinct animals such as giant giraffes, mammoths, and mastodons may have inspired some ancient conceptions of sea monsters. One of the first to suggest that fossils inspired monsters in classical myth was E. McCartney, in a paper about how fossils were perceived in the Greco-Roman world. Although brief, McCartney pointed to how the fossil remains of prehistoric animals likely inspired the ancient authors (1924: 3). More recently, A. Mayor adduced far more specific evidence that fossils inspired ancient artists and authors. The basis for Mayor's claim was a detailed study of a Corinthian column-crater (i.e., a wine-mixing vessel) dated to the mid-sixth century BCE, depicting a scene from Greek myth: Heracles rescuing the Trojan princess Hesione from a sea monster. Taking this vase painting as a point of departure, Mayor convincingly argues that the monster's head was not a poor artistic rendition, as prior research proclaimed, but rather an accurate depiction of the fossil remains of a skull of a long extinct animal (2000: 58). As an aside, going forward I use "Heracles" when referring the hero in Greek sources and in general, but "Hercules" when referencing Roman sources, the latter being the Latin (and later the anglicized) spelling.

Mayor points to the fact that the fossilized skeletons of extinct megafauna such as mastodons, giraffes, elephants, rhinoceroses, and cave bears, dating from the Miocene to the Pleistocene eras (23 Ma ago to ca. 11,000 BCE) were frequently found in the Mediterranean area. These remains were exposed by nature via erosion, floods, storms, and earthquakes or through human activity such as digging or plowing, and they clearly fascinated the ancients, not least since they appeared to confirm the ancient myths of giant monsters and sea monsters.[13] Mayor's arguments are strengthened by the written sources, such as a passage in the *Geographica* of the Greek geographer Strabo (ca. BCE 63–ca. 23 CE). This passage specifies that remains which were believed to be those of the mythical sea monster that attacked Andromeda found in the coastal city Jaffa were in fact discovered far above the shoreline, up on a place of high elevation (16.2.17).

In addition to the categories discussed above, all belonging to the animal kingdom, it is worth briefly mentioning natural phenomena associated with sea monsters. One such was the perilous whirlpool in the Strait of Messina, deeply feared by seafarers and personified by the sea monster Charybdis. Ryan Denson argues that rather than being the cause of the whirlpool, the monster Charybdis is in fact the whirlpool itself (2023b: 96). Similarly, the massive tidal waves (or tsunamis) associated with the merciless wrath of Poseidon were sometimes embodied by sea monsters.[14] However, while the whirlpool in the Strait of

Messina was a daily occurrence, tsunamis constituted a relatively rare phenomenon in the Mediterranean. Seismological research has demonstrated that strong tsunamis strike the coasts on average only once a century, even though earthquakes happen frequently.[15]

SEA MONSTERS WITH TRIPLE SETS OF TEETH AND SERPENTINE BODIES

While the textual evidence on sea monsters is both rich and varied—and unsurprisingly so since these texts span from Archaic Greece to Late Imperial Rome (750 BCE to 500 CE)— I now turn to specific traits of these monsters: their triple sets of teeth, their serpentine bodies, and the caves in which they were thought to dwell. These details are found in different myths about sea monsters: Scylla and Charybdis, the sea monsters slain by the heroes Heracles and Perseus, and the sea snakes that killed Laocoön and his sons at Troy.

The notion that sea monsters had triple sets of teeth ultimately derives from a passage in Homer's *Odyssey* describing Odysseus's perilous passage through the Strait of Messina by ship. Hidden in a cave is Scylla, a monster with six heads, each with triple rows of sharp teeth (τρίστοιχοι ὀδόντες, 12.91). For the ship to go through the strait unscathed, all whilst avoiding the violent and destructive powers of Charybdis's whirlpool, six sailors must be given up to the monster. While Homer was widely read and often quoted, there are a mere handful of passages in ancient literature which explicitly mention triple sets of teeth.

Two of the most detailed descriptions of sea monsters are found in much later sources: the first-century CE Roman author Valerius Flaccus's *Argonautica* and the second- to third-century Roman author Philostratus the Younger's *Imagines*. Valerius Flaccus gives the reader a vivid rendering of the sea monster Hercules combatted to save the maiden Hesione: serpentine shape with coils (*sinus*), flashing eyes (*stellantia lumina*), and a triple row of fangs (*trisulco*) (2.493–508). Philostratus describes the same creature in similar terms. The monster is of gargantuan proportions, with an elongated, serpentine shape; some parts of it are invisible below the sea's surface, whilst others, emerging from the water, resembled remote islands. It has large round eyes (ὀφθαλμοὶ κυκλοτερῆ) and triple rows of teeth (τριστοίχους ὀδόντας). Some teeth are sharp and pointed, while others are barbed and hold on to its prey (*Imagines* 12).

As mentioned above, another author referring to sea monsters as having triple rows of teeth is Oppian, in his *Halieutica*. After having painted a colorful

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picture of whaling, Oppian compares the whale to a sea monster with jaws having triple sets of javelin-like teeth (5.325–327). Moreover, numerous passages in the ancient texts refer to sea monsters as having a serpentine shape, and there are many examples of this in ancient art as well, especially on Greek vases.[16] Ogden stresses that this was a feature shared with dragons (2013: 116–17, 121). Dragons are also portrayed in this manner in the written sources. An example of such a description of a dragon (or possibly some sort of snake) appears in Nicander of Colophon's *Theriaca* (ca. 200 BCE), a work on venomous animals (lines 438–442). Notably, this creature displays the same features as the sea monsters: a jaw with triple rows of teeth, and luminous eyes.[17]

The sea monsters that Hercules and Perseus fought were serpentine, as for instance in Ovid's poem *Metamorphoses* (8 CE), which contains an extended description of Perseus fighting a sea monster to rescue the princess Andromeda. Ovid likens the hero's flight through the air on winged sandals to an eagle's merciless pursuit of a serpent (*draconem*, 4.715). While not explicitly stating the monster's serpentine shape, this simile strongly suggests it. Manilius's *Astronomica*, which tells the same story, describes the massive sea monster's (*onus monstri*, 5.581) winding coils visible on the surface of the sea (5.585–600).

The two monstrous snakes sent by Apollo to punish Laocoön (for daring to warn the Trojans about the Wooden Horse) appear in many versions of the story; they came from a neighboring island and swam across the sea to strangle the Trojan priest and his two sons.[18] The Greek epic poem *Posthomerica*, composed by Quintus Smyrnaeus sometime in the third century CE, provides us with a more detailed picture. These sea snakes were the spawn of the monster Typhon, one of Greek myth's truly terrifying beasts, who had a hundred snaky heads and eyes that blazed fire (12.444–498). Perhaps the most colorful portrayal of this scene comes in Vergil's *Aeneid*: His description of the sea serpents that attack Laocoön and his sons is dramatic indeed. As they swim across the sea, their long coils are visible (*immensis orbibus angues / incumbunt pelago*, 2.204–205); and when these serpents reach land, they start to violently strangle Laocoön's two sons before killing Laocoön himself. From the monsters' hissing mouths quivering tongues protrude (*sibila lambebant linguis vibrantibus ora*, 2.211), their eyes blaze (*ardentis oculis*, 2.210), and their fangs easily cut through flesh (*miseros morsu depascitur artus*, 2.215).

While some sea monsters clearly were seen as denizens of the deep seas, others were thought to dwell in caves on land, like the snakes who caused the death of Laocoön. Similarly, Scylla has been viewed as a sea monster by both the ancient authors and modern-day scholars, yet she is never in the water. The

Roman author Macrobius writes that Scylla dwells in a dark cave, suddenly attacking ships and sailors from land (*Saturnalia* 5.6.4). In Greek myth, notes Y. Ustinova, "caves were dwelling places for various creatures unwelcome in the civilized world" (2009: 2). These "hollow homes" were thought to be the habitat for a variety of monstrous beings, sea monsters, and terrestrial monsters alike (Morris 1984: 6).

MORAY EELS IN THE ANCIENT MINDSET: GLUTTONOUS, CRUEL, AND DEADLY

The Greek elites' fondness of fresh seafood, fish in particular, is reflected in the written sources. Those sources' attitude to fish as a food can best be described as ambivalent. On the one hand, fish was regarded as representing the good life; on the other hand, it was associated with a lavish way of life: indulgence, excess, and indeed even greed. This is in turn related to a recurring topos in the literary sources, namely, the steep prices of freshly caught fish—prices sometimes bordering on the ludicrous.[19] As we shall see, later Roman literature adopted very similar views.

If we turn specifically to moray eels in the ancient texts, we can find a wealth of information on how they were perceived and, as will be clear, many of these perceptions were profoundly negative. Morays both fascinated and repelled the ancient authors, who considered them cruel, savage, and frightening. The underlying reason for the interest in morays was that the animal constituted a much appreciated and sought-after food, and authors were astounded by the prices that their fellow members of the elite were prepared to pay for it.

The moray eel clearly carried both positive as well as pejorative connotations in ancient Greece, for while it was considered a delicacy served at the dinners of the elite, it evoked both fear and loathing as a species. An example of this appears in Old Comedy, in Aristophanes's drama *Ranae* ("Frogs") from 405 BCE. In this comedy, the god Dionysus and his slave Xanthias go to Hades (the netherworld) in a so-called *katabasis* to bring back the recently deceased Athenian playwright Euripides. Hades is a truly terrifying place, for not only the dead dwell here, but also many disturbing beings such as demons, monsters, and chthonic gods (Santamaría Álvarez 2015: 118).

In one scene, Dionysus meets Aeacus, the doorkeeper of Hades's house. Rather than revealing his true identity, Dionysus misleadingly claims to be Heracles and is met with a stream of abuse by the doorkeeper who thinks that he has stolen

Cerberus, the three-headed hound of Hades. In no uncertain terms Aeacus makes clear that he wants "Heracles" torn asunder by a series of different monsters: the Hounds of Cocytus (dog-like creatures that torment oath-breakers), the Hundred-headed Echidna (a hybrid between a serpent and a woman), the Gorgons (three monstrous, snaky-headed sisters, including Medusa), and most importantly by a Tartessian moray (Ταρτησσία μύραινα, *Ranae* 475). "Tartessian" is a play on words, typical of Aristophanes. First, it alludes to something trivial, the town of Tartessus (in present-day Spain), famous for its moray eel.[20] But second, it alludes to the terrifying Tartarus, a place of punishment in the deepest part of the Hades (Santamaría Álvarez 2015: 130–31).

Turning from comedy to tragedy, we find a moray eel example with negative connotations in Aeschylus's tragedy *Choephoroi* ("The Libation Bearers"). In this play, Queen Clytemnestra, who had murdered her husband, King Agamemnon, is likened to a viper and a moray eel by her son Orestes, because of her faithlessness and wickedness: Like the moray or viper (μύραινά γ'εἴτ'ἔχιδν', 994), her actions cause suffering and death.[21]

In her study of food in Roman literature, E. Gowers demonstrated how Roman authors used descriptions of meals—regardless of writing about actual persons or fictional characters—as a means of projecting an individual's moral and cultural values (1993: 4), as for example with the emperor Augustus's humble eating habits: He preferred simple foods, such as small fish (Suetonius, *Divus Augustus* 76). Suetonius stresses Augustus's simple habits to demonstrate that he is a worthy leader of the Roman Empire: Although as a man of immense power and wealth Augustus could have had enjoyed a rich diet, as was typical of Roman nobility, his frugality reflected moderation and control on the one hand, and on the other, traditional values and morals.[22] In contrast, his predecessor Julius Caesar's lavish spending on expensive food stuffs, including moray eel, indicated a more dissolute lifestyle (Varro, *De re rustica* 3.17.3).[23] Descriptions of moray eels in literature also reflected Roman reality, for what was served at the dinners of the Roman elite was far from arbitrary; rather, the different dishes carried a symbolic value. Serving fresh fish could signify positive values such as status and wealth, or negative ones such as excessive expenditure and gluttony (see Dupont 1999; Purcell 1995: 135–36; Déry 1998: 94). The positive values connoted by the fish were made manifest in art, for instance floor mosaics of the well-to-do.[24]

The waters of the Mediterranean are, and were, relatively poor in fish and other marine life in comparison to other seas and oceans, and in the Roman Era it was overfished.[25] Moreover, fishing was a precarious task that could fail due to

poor weather (Horace, *Saturae*, 2.2.15–18; Lewis and Llewellyn-Jones 2018: 652). In light of this, it is hardly surprising that freshly caught fish were costly and that a recurring topos in Roman literature was the occasionally ludicrous price of fish (Marzano 2018b: 163–64). Moreover, Romans preferred to eat what the land produced, whereas the consumption of fish caught at sea was often considered to be the result of foreign corruption (Wilkins 2003: 364–65).[26] Whether attitudes toward fish were negative or positive, the elite's fondness for fish was clearly manifest, and numerous passages in ancient literature specifically mention moray eels served at meals of the wealthy. When a grand triumphal dinner with some 200,000 to 330,000 guests was staged in honor of Julius Caesar in 46 BCE (see Marzano 2020), no fewer than 6,000 moray eels were procured from the fish farmer Gaius Hirrius, mirroring the high status these carried (Pliny the Elder, *Natural History* 9.81.171; Macrobius, *Saturnalia* 3.15.10).

The first-century CE Roman agricultural author Columella briefly brings up the topic of fish farming. He argues that farming freshwater fish in ponds was a tradition that dated back to Romulus, the legendary founder of Rome (eighth century BCE), whereas keeping saltwater fish, including moray eels, was a much later invention (*De re rustica* 8.16.1–2; see Kron 2014). Some of the keenest farmers of fish, Columella noted, were even named after different species of fish they bred, such as Sergius Orata (fl. ca. 95 BCE), "gilt-head bream," and Licinius Muraena (praetor 88 BCE), "moray eel," much like other members of the Roman elite acquired cognomina after conquered peoples and lands.[27]

Beyond being farmed in fishponds, moray eels were also fished in most of the Mediterranean's waters. The best, however, were considered to come from the Strait of Messina, associated with the sea monsters Scylla and Charybdis. The Roman satirical poet Juvenal (fl. early second century CE) wrote of fishermen boldly defying Charybdis's perilous whirlpool, laying down their nets to catch the largest and thus most expensive morays (*Saturae* 5.99–100). It was not only hazardous waters the fishermen had to brave, however, but attacks of the animal fiercely defending itself; they feared not only its powerful jaws and sharp teeth, but its poisonous bite. In his work on venomous animals, *Theriaca*, the Hellenistic poet Nicander of Colophon describes the panic the fishermen felt when a moray eel got loose on deck:

Ναὶ μὴν οἶδ' ὅσα πόντος ἁλὸς ῥόχθοισιν ἑλίσσει,
σμυραίνης δ' ἔκπαγλον· ἐπεὶ μογεροὺς ἁλιῆας
πολλάκις ἐμπρήσασα κατεπρήνιξεν ἐπάκτρου
εἰς ἅλα φυζηθέντας ἐχετλίου ἐξαναδῦσα.

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Indeed, I know about the many creatures that swim in the waves of the briny sea,
and the terror caused by the moray, since often, attacking hardworking fishermen,
it hurls them down into the sea from their boat as they flee
when it emerges from the hold. (*Theriaca* 822–825)

Pliny the Elder, whose encyclopedic *Natural History* teems with treatments derived from traditional folk-medicine, suggested that moray bites be treated with ashes of a burnt moray eel's head (32.20.57–58)—an example of the idea in Roman folk medicine that "like cures like" (*similia similibus curentur*).

The moray eel incorporated other negative aspects (Thompson 1947: 162–64). As mentioned above, moray eels were associated with well-to-do gourmands and gluttons,[28] and Oppian characterized the fish itself as a gourmand or gluttonous (Gr. ὀψοφάγοι, *opsophagoi*, "relish-eating," *Halieutica* 1.141). Notably, the same author describes sea monsters in similar terms, as gluttons with an insatiable hunger (*Halieutica* 5.46–61). Pseudo-Ovidius's work on fishing describes the moray as *ferox*, perhaps best translated as "fierce," "savage," or "warlike" (*Halieutica* 27). In several sources the moray eel is not described as a predator catching its prey, but rather as an animal involved in continuous conflicts and wars taking place in the depths of the sea (Pliny the Elder, *Natural History* 9.88.185; Aelian, *De natura animalium* 1.32; Kneebone 2007: 291). Oppian, too, describes the morays as aggressive, hostile, and warring with other marine creatures. Moreover, he portrays them as both menacing and cruel (*Halieutica* 2.253–389; see Kneebone 2020: 231–39).

In Seneca the Younger's work on anger, *De ira* (first century CE), we find an oft-repeated anecdote about the Roman knight (*eques*) Vedius Pollio and his unmitigated anger. Pollio was unparallelled in cruelty and outright savagery, and frequently had insubordinate slaves hurled into the pools where he kept moray eels, so that the disobedient servants would be torn asunder and eaten alive. When the Emperor Augustus dined at his place, a slave accidentally broke a crystal cup and Pollio consequently ordered that he be cast into the fishponds. Seneca describes Pollio's anger as fierce, inhuman, and above all bloodthirsty, but Augustus immediately put a stop to his cruel and vile actions, thereby saving the slave's life (*De ira* 3.40).[29]

Seneca the Younger returns to the same anecdote in a discussion regarding the right behavior and moral stance of rulers in his *De clementia* ("On Mercy"), in which the author likens Pollio's fishponds to snake-pits (1.18.1–3). This may refer to the common belief that female morays had the ability to slither onto land, so that they could mate with male vipers. Before coming down to the

shores, the viper would empty its fangs of venom, after which it summoned its "bride" from the sea with a soft hissing sound.[30]

Beyond its bite there were many other aspects of the moray eel that brought snakes and vipers to mind. Aristotle's *De partibus animalium* compares the moray eel moving through water to a snake moving across land (4.13 696a 1–9). Achilles Tatius's Greek novel *Leucippe et Clitophon* (second century CE) describes the moray eel as having the outward appearance of a snake, while actually being a fish: "a snake of the sea" (1.18.3–4). In contrast, Saint Basil the Great, Bishop of Caesarea (d. 379) suggested that morays were more like venomous reptiles than fish (*Hexaemeron* 7.2). Furthermore, they were difficult to categorize as they were thought to represent the interbreeding of two different animal species, one terrestrial and one marine.

Basil of Caesarea also echoed other negative sentiments expressed in earlier Greek and Roman writings. In one passage, he presents the reader with a grim picture of what married women might have had to endure. Comparing husbands to vipers by arguing that they may be brutal and abusive and exhibit an irritable and cruel nature, he comments that even in these cases the marriage must be upheld. His reasoning is that much like the female moray had to mate with the viper, the wife had to put up with her husband and accept the downsides of married life (*Hexaemeron* 7.5).

In antiquity it was well known that moray eels dwelt under rocks at the bottom of the sea (e.g., Oppian, *Halieutica* 2.253–389). Morays were also associated with caves, and Aristotle and Pliny the Elder both argue that they hibernated or hid there during the harsh winter months (Aristotle, *Historia animalium* 599b, 7; Pliny the Elder, *Historia naturalis* 9.24.57).

MODERN PERSPECTIVES: MARINE BIOLOGY

Clearly, the Greeks and Romans were well acquainted with the Mediterranean moray, reflecting the fact that this species of fish is found throughout the Mediterranean and the eastern Atlantic Ocean (Randall and Golani 1995: 869–70). All moray eels, including the Mediterranean species, have elongated, serpentine, bodies. They are extremely flexible and can move forward as well as backward into narrow crevices, an action facilitated by the eel's scaleless, slimy skin. This and its body-shape are adaptions to its habitats (Böhlke, McCosker, and Böhlke 1989: 104; Mehta and Wainwright 2008: 604; Mehta et al. 2010: 1092). Moray eels found in other parts of the world can be quite large; the giant

moray (*Gymnothorax javanicus*) of Pacific regions can reach over three meters in length, but the Mediterranean moray are smaller, with adults averaging a little over one meter long (Matić-Skoko et al. 2011: 275).

The Mediterranean moray is a solitary, fiercely territorial species (Matić-Skoko et al. 2011: 276–77). They dwell in cavities and clefts at the sea bottom, hidden from view, waiting to ambush unsuspecting prey. These morays have small eyes and poor eyesight, relying instead on their highly developed sense of smell when searching for prey. They have a large mouth-opening, but more importantly the family Muraenidae has a physical feature that differentiates them from most other fish: extendable pharyngeal jaws (fig. 1). When the moray has caught and bitten its prey with its oral jaws—the first set of teeth, located in the mouth—a second set of toothed jaws further back in the throat is launched into the mouth cavity. These pharyngeal jaws grab the prey and then retract to pull the catch back toward the gullet (Mehta 2024: 555). The first to fully understand this mechanism in moray eels were R. Mehta and P. Wainwright, who based their study on the North American species *Muraena retifera* (2007: 79; 2008: 604).

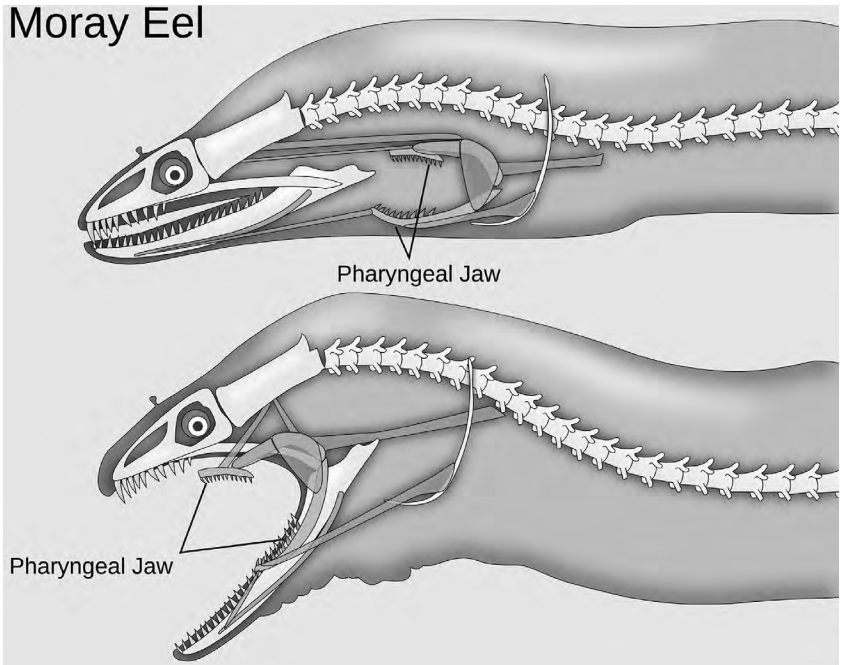

FIG. 1 Pharyngeal jaws of moray eels, Wikimedia Commons. Zina Deretsky, National Science Foundation (after Rita Mehta, UC Davis). CC BY 3.0 (https://creativecommons.org/licenses/by/3.0/deed.en); original illustration colored.

The large, long mouth and pharyngeal jaws allow moray eels to swallow prey of substantial size (Nelson 1967: 363; Mehta and Wainwright 2008: 604). Many species of morays can tie themselves around larger prey in a "knot" to hinder it from fleeing, whilst biting off large chunks of the victim's flesh (Mehta et al. 2010: 1102–3).

Fishermen as well as scuba-divers often find the moray eel extremely frightening. Gianni Angelini and D. Bonamonte have suggested that the underlying reason for the belief that morays are vicious and voracious is the fact that morays open their mouths when breathing, or to be more precise, they orally pump water through their gills. This opening and closing of the mouth can seem threatening and thus be a cause of fright (Angelini and Bonamonte 2002: 125–26). The fear of moray eels is not without justification, however; the bite of this fish can be hazardous to humans as it has toxic saliva and blood. The pain caused by such a bite is described as "instantaneous, constant and extremely fierce" (Angelini and Bonamonte 2002: 127).

One largely unexplored aspect of moray eels is their ability to emerge from their marine environment and briefly come up on land to catch their prey. Reports suggest this for a limited number of species of moray eels, including the snowflake moray (*Echidna nebulosa*) found in the Indian Ocean and the Pacific. This is possible both because of its serpentine body-shape, which allows it to move across land, and the fact that it does not need water to swallow its prey, instead using its pharyngeal jaws (Mehta and Donohoe 2021: 1; see Heiss, Aerts, and Van Wassenbergh 2018: 9). Whether the Mediterranean moray also displays this type of behavior remains unclear.

BRINGING THE EVIDENCE TOGETHER: MORAY EELS AS A SOURCE OF INSPIRATION

Evidence suggests that traits and features of different animals were combined, with a great proportion of fantasy, to form various hybrid creatures of myth and legend, monsters more frightening than any single species of animal (Cohen 1996: 7; Felton 2012: 104). Jeffrey Cohen has argued that hybridity is one significant hallmark of monsters: "This refusal to participate in the classificatory 'order of things' is true of monsters generally: they are disturbing hybrids whose externally incoherent bodies resist attempts to include them in any systematic structuration" (1996: 6). Cohen also asserts that monsters "are never created *ex nihilo*, but through a process of fragmentation and recombination . . . [of]

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elements." (1996: 11). Elsewhere, he argued that stories of monsters always are historically specific (1999: xv); in other words, they reflect the society and culture of their time. The sea was fundamental for Greco-Roman society: Most major cities were situated on the coasts of the Mediterranean, and mercantile transport across the sea was crucial. Moreover, fish was an important part of the ancient Mediterranean diet. Yet the sea was perceived to pose various threats: real ones in the form of fierce and lethal storms, and imaginary ones in the form of terrifying creatures such as sea monsters that dwelt in the depths. The sea monsters of Greco-Roman antiquity embodied these fears, which made them tangible and thus possible to deal with.

As we have seen, convincing arguments demonstrate that the elements of which these sea monsters were composed (both physically and behaviorally) were inspired by a wide variety of animals, including some still living, some long gone, and even fossil remains from past geological eras. There are, however, compelling arguments that we can add the Mediterranean moray to that already long list of possible animal origins for sea monsters. To recap:

1. Moray eels were a much appreciated and highly priced food, and consequently they were fished all over the Mediterranean Sea. Those from the Strait of Messina, legendary home to the sea monster Charybdis, were regarded as the best. Fishermen had a deeply rooted fear of these fish, which fiercely defended themselves, their bite being venomous and causing intense pain. Morays were also farmed in ponds on properties close to the sea, and a widespread anecdote concerned how an unusually cruel and callous slave-owner, Vedius Pollio, had insubordinate slaves thrown into these pools to be devoured alive. In short, the moray eel was well-known and deeply dreaded in antiquity.
2. Moray eels have two sets of teeth: one primary set in the front of the jaw (the oral jaws) and a second set placed further back in the throat (the pharyngeal jaws). The latter may well be the source of inspiration of some sea monsters, particularly those described as having triple sets of teeth.
3. The moray eel has a body resembling that of a snake. In Greco-Roman antiquity sea monsters were often thought to have a serpentine shape, and in the case of the monsters that strangled Laocoön and his sons, the sea monsters *were* snakes. Moray eels were often likened to snakes and were regarded as snakes of the sea.
4. Like sea monsters in myth who dwelt in caves, the moray eel lives in rocky outcrops and crevices at the bottom of the sea.[31] The morays fiercely defend

these habitats of theirs, and from them they ambush their prey. Yet they were also thought to be able to crawl up on land to mate with vipers.

5. And for this reason—their ability to switch from sea to land and back again— moray eels had a liminal quality to them, much like monsters.

In sum, we have plenty of evidence and strong arguments to suggest that sea monsters of ancient Greek and Roman literature and art were, at least in part, influenced and inspired by the Mediterranean moray eel.

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NOTES

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1. For general discussion of sea monsters in classical antiquity, see Asplund Ingemark and Ingemark 2020, ch. 10; Ingemark and Asplund Ingemark 2024.

2. On the terms κῆτος and *cetus* see, for example, Suidas, s.v. κῆτος; Thompson 1947: 114; Waugh 1961: 363; Boardman 1987: 73; Papadopoulos and Ruscillo 2002: 206–7; Kitchell 2014: 54, 197; and Lewis and Llewellyn-Jones 2018: 417–18.

3. On whales in classical antiquity, see Kitchell 2014: 197–99. On archaeological finds of whalebones and whaling in ancient historical records, see Papadopoulos and Ruscillo 2002; Szabo 2008, ch. 2; Bernal-Casasola et al. 2016; and Rodrigues et al. 2016.

4. Whales generally as a source of inspiration for sea monsters, see: Coulter 1926; Waugh 1961; and West 1991.

5. All translations from Greek and Latin are my own. The ancient Greeks and Romans did not know that whales aspirate rather than "spouting water" through their blowholes, which are whales' version of nostrils. To be fair, whales exhale through their blowholes with great force, often creating a misty spray (from internal warm air and external cool air colliding) that resembles a stream of water, so the misperception is understandable.

6. On baleen whales, see Coleman 1983: 229–30; and Werth and Potvin 2024: 5. Baleen is composed of keratin, not bone, despite also being referred to as "whalebone" (a misnomer). Coleman notes that Manilius's description of the sea monster (5.583) uses the term *dentibus* ("teeth") but argues, "Mythographers, however, would quite understandably ignore the distinction between the whalebone-blades and actual teeth" (1983: 230). However, she also notes that Manilius describes the monster as snapping its jaws (5.601–602), which in her view could be interpreted as referring to toothed whales (odontocetes; 1983: 230). Other physical features could indicate the suborder of whale; for instance, we know that toothed whales only have one blowhole, whereas baleen whales have two (Buono et al. 2015: 81). It is not possible to judge which one Manilius's text references, however, given the lack of details.

7. On these aspects of shark anatomy and physiology, see Rodrigues et al. 2016: 931–32; see also Motta 2004: 186. For an in-depth discussion of Oppian's *Halieutica* bk. 5, which presents a dramatic account of hunting and killing a sea monster of gargantuan proportions bearing traits of both sharks and whales (5.46–349), see Kneebone 2020, ch. 10, which argues that while reflecting actual whaling practices, Oppian presents the scene in terms of a cosmic battle and turns it into a tale saturated with mythical monsters. Reality is filtered through a literary lens, and the poet presents a text strongly influenced by Hesiod's *Theogony* and Homer's *Iliad* and *Odyssey*.

8. On sharks and dogfish in relation to Scylla, see Denson 2023a: 52 and Hünemörder 2006. A good example of land animals having marine equivalents appears in Oppian's *Halieutica*, where he discusses the creatures that dwell in Poseidon's realm: The poem compares dogs and "sea dogs" (sharks), rams and "ram fish" (killer whales), leopards and "sea leopards," the latter still unidentified (5.21–45). See also Emily Vermeule's discussion of the depths of the sea being inhabited by both domestic flocks as well hungry predators (1979: 188).

9. On giant oarfish, see Heuvelmans 1968: 84–86; Vermeule 1979: 183; and Papadopoulos and Ruscillo 2002: 217–18.

10. Ctesias's *Indica*, quoted by Photios, *Bibliotheca* 45a 20f.; Aelian, *De natura animalium* 5.3.

11. For a discussion of when the classical world encountered python snakes, see Hünemörder and Bremmer 2006. On dragons in Greek myth, see Ogden 2013: 26 and Ogden 2021: 9.

12. *Beluae cui dicebatur exposita fuisse Andromeda ossa Romae apportata ex oppido Iudaeae Ioppe ostendit inter reliqua miracula in aedilitate sua M. Scaurus*.

13. On these fossils, see Mayor 2001: 64–65; and 2014: 579–81. There has been some debate as to which species the skull on the Corinthian crater represents; J. Monge-Nájera argues that it was not a mammal, such as a giraffe, but instead a giant lizard of the genus Varanus (2020: 150).

14. Several classical scholars have suggested that tsunamis were associated with sea monsters, including the one that devastated Troy. See, for example, Andrews 1965: 31; Smid 1970; Forsyth 1975; and Forshaw 1987. Seismologists have come to similar conclusions (see Papadopoulos 2005).

15. On the whirlpool in the Strait of Messina, see Longhitano 2018: 262–63; on tsunamis in the Mediterranean, see Papadopoulos and Chalkis 1984; Dominey-Howes 2002; and Papadopoulos et al. 2014.

16. An example of this is a Campanian red-figure calyx-crater (a vessel for mixing wine) dated to 360–350 BCE in the State Collections of Antiquities in Munich (Staatliche Antikensammlungen); see *LIMC*, s.v. "Hesione," no. 5. See also *LIMC* Supplement, s.v. "Ketos."

17. The eyes of these sea monsters are consistently described as "glowing" (*ardentis oculos*, Vergil, *Aeneid* 2.210, see below), "flashing" (*stellantia lumina*, Valerius Flaccus, *Argonautica* 2.499–500), or large and round (ὀφθαλμοὶ κυκλοτερῆ, Philostratus the Younger, *Imagines* 12).

18. In the many versions of the myth the punishing god varies—Apollo, Athena, or Poseidon (see the discussion in Ingemark and Asplund Ingemark 2024: 99–101). On the monstrous snakes sent to punish Laocoön, see, for example: Petronius, *Satyrica* 89–90; Apollodoros, *Bibliotheca*, Epitome 5.14–19.

19. For an overview of the symbolism of fish in Classical Greece, see Davidson 1993, 1997; Dalby 1996: 28; Wilkins 2000: 293–300; McInerney 2022: 65–66. For the topos of exceedingly steep prices of fish, see Davidson 1993: 57 and Paulas 2010: 403–4.

20. Moray eels caught in the sea outside of Tartessus were considered to be of supreme quality in the Roman era as well; see Columella, *De re rustica* 8.16.10.

21. For a discussion of the animal imagery in Aeschylus's *Oresteia* trilogy, see Kanellakis 2020.

22. For a discussion of frugality, see Nelsestuen 2017.

23. James Davidson argues that in both Greek and Roman contexts the consumption of fresh fish, in particular large fish, was regarded not only as representing an excessive lifestyle associated with the elite but also in some cases as representing tyrannical power (1993: 59–61). One example of this is the story of Polycrates (the tyrant of the island of Samos, 535–522 BCE) in Herodotus's *Histories* (3.42). Another example, concerning the Roman emperor Domitian (r. 81–96 CE), appears in the work of Juvenal (*Satire* 4.37–72).

24. For example, this fish mosaic from the House of the Geometric Mosaics at Pompeii: https://commons.wikimedia.org/wiki/File:%27Catalogue_of_Fish%27_mosaic_from_Pompeii.jpg.

25. Many marine biologists argue that the Mediterranean is oligotropic, that is, poor in nutrients, leading to low biological activity and hence poor marine life (e.g., Turley et al. 2000: 11; Powley, Van Cappellen, and Krom 2017: 47–48; Purcell 1995: 135). Osteologist D. Mylona has made the case that this notion oversimplifies matters, and argues that parts of the Mediterranean have a considerably richer marine life than previously thought (2015: 148–50). On overfishing in the Roman era, see Juvenal, *Saturae* 5.89–93; Trakadas 2006: 264–65.

26. While fish caught in the sea was held in high regard, the attitude toward fish caught in rivers was more ambivalent. An example of this is the fish from the River Tiber: Juvenal describes it as bloated with sewage (*Saturae* 5.96–99). Macrobius in turn argues the opposite, that fish from the Tiber was of superior quality and taste (*Saturnalia* 3.16.12).

27. On the names Orata and Muraena, see Columella, *De re rustica* 8.16.5. While Orata was best known for farming oysters, his name derives from the Latin *aurata*, "gilt-head bream" (*Sparus aurata*); see Bartels 2006; Dalby 2003: 243. For Muraena, see Marzano 2018a: 171; Elvers 2006.

28. In one of Horace's *Satires*, the poet presents the reader with a vivid portrayal of a lavish dinner in which moray eel is served with a sauce of the finest olive oil and vinegar, white pepper, rocket (arugula) salad, and elecampane flower (2.8.42–53). This is but one of many

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examples of how moray eel, alongside other species of fish (such as bass and red mullet) came to embody the tastes of the wealthy (Purcell 1995: 141; Déry 1998: 96; Marzano 2018b: 165).

29. See also Pliny the Elder, *Natural History* 9.39.76–77, and Dio Cassius, *Historia Romana*, 54.23.1–7. Some modern research considers the notion of Vedius Pollio's moray eels devouring people alive as fanciful and exaggerated, because morays typically live on smaller prey such as fish, cephalopods, and crustaceans (e.g., Matić-Skoko et al. 2011: 276–77). Andrew Dalby has argued that a moray's bite could fester and therefore cause a lethal bacterial infection (2003: 221). Sian Lewis and L. Llewellyn–Jones have in turn suggested that the slaves fed to the moray eel had their throats cut first (2018: 670). Angelini and Bonamonte point out that panicked thrashing—not uncommon for frightened scuba-divers encountering moray eel today—can have precarious, potentially lethal consequences (2002: 125–26).

30. On the belief about the female moray mating with vipers, see Aelian, *De natura animalium* 1.50 and 9.66; Oppian, *Halieutica* 1.554–579; Oppian, *Cynegetica* 1.376–392. Disagreeing with these was Andreas of Carystus, quoted by Athenaeus (*Deipnosophistai* 7.312e). See also Kitchell 2014: 63–64.

31. See, for example, https://commons.wikimedia.org/wiki/File:Morena_del_Mediterr%C3%A1neo_(Muraena_helena),_Regga,_Gozo,_Malta,_2021-08-23,_DD_14.jpg.

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